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EPA

FACT SHEET

EPA's Final Pulp, Paper, and Paperboard "Cluster Rule" -- Overview

Summary

The combined air and water "cluster rule" for the pulp and paper industry protects human health and the environment by reducing toxic pollutant releases to the air and water. The technology standards in the rule cut toxic air pollutant emissions by almost 60 per cent from current levels and virtually eliminate all dioxin discharged from pulp, paper, and paperboard mills into rivers and other surface waters. The rule also provides individual mills with incentives to adopt Advanced Pollution Control Technologies that will lead to further reductions in toxic pollutant discharges beyond the water discharge limits set in the rule.

This is the first time EPA has issued an integrated, multi-media regulation (or "cluster rule") to control the release of pollutants to two media (air and water) from one industry. EPA is issuing these joint air and water standards under the authority given to them in the Clean Air Act and the Clean Water Act. In doing so, EPA is making it possible for individual mills in this industry to consider all regulatory requirements at one time. This will reduce the regulatory burden on these mills and allow them to select the best combination of pollution prevention and control technologies that provide the greatest protection to human health and the environment.

Cluster Rule

The cluster rule sets new baseline limits for releases of toxics and nonconventional pollutants to the air and water. The rule includes:

- **Air Emissions Standards.** New and existing pulp and paper mills must meet air standards to reduce emissions of toxic air pollutants occurring at various points throughout the mills. Specifically, EPA is requiring mills to capture and treat toxic air pollutant emissions that occur during the cooking, washing, and bleaching stages of the pulp manufacturing process.

- **Water Effluent Limitations Guidelines and Standards.** New and existing facilities in the bleached papergrade kraft and soda subcategory and the bleached papergrade sulfite subcategory must meet standards to reduce discharges of toxic and nonconventional pollutants. Specifically, EPA is setting effluent limits for toxic pollutants in the wastewater discharged during the bleaching process and in the final discharge from the mills. These limits are based on substituting chlorine dioxide for chlorine in the bleaching process. Mills in affected subcategories must also follow Best Management Practices to prevent spills of black liquor into the wastewater sewers.

- **Analytical Methods for 12 Chlorinated Phenolics and Adsorbable Organic Halides (AOXs)**. Samples of air emissions and water discharges from each mill must be tested using the laboratory methods included in the rule. These new methods

will enable more timely and accurate measurements of releases of these pollutants to the environment and will be used to ensure compliance with air emission and water discharge permit limits.

Pollution Prevention

In combination, these air and water rules achieve greater pollution prevention and process optimization than either regulation alone could achieve. For example, some air requirements which reduce toxic air pollutants also reduce mill wastewater toxic pollutant loadings and some of the technologies used to meet water limits further reduce air emissions.

Significant Environmental Benefits

The rule significantly improves protection of the environment by reducing the amount of pollutants that will be released to the environment by these mills:

- Emissions of over 160,000 tons of toxic air pollutants (59% of current levels) will be eliminated
- Emissions of reduced sulfur (odor causing pollutants) will be reduced by 47% from current levels
- Emissions of volatile organic compounds will be reduced by 49% from current levels
- Emissions of particulate matter will be reduced by 37% from current levels
- Chloroform discharges to water will be reduced by 99% from proposal levels
- Dioxin and furan discharges to water will be reduced by 96% from proposal levels
- Dioxin and furan loading to sludges will be reduced by 96%

Significant Human Health Benefits

The final rule will have significant benefits to human health:

- 73 rivers and streams become cleaner because of these toxic pollution reductions
- Ultimately all dioxin fish consumption advisories associated with the 96 pulp and paper mills affected by this action will be eliminated
- Lowers dioxin-related health risks for Native Americans and others who eat more than average amounts of fish.

The Impact of the Rule on the Pulp, Paper, and Paperboard Industry

- The rule regulates toxic air pollutants in 155 of the 565 pulp, paper, and paperboard mills in the United States, and it regulates toxic water discharges from 96 of the 155 mills.
- Individual mills may choose the control technologies and process change combinations that are the most advantageous for them to meet these regulations.
- EPA estimates that the industry will need to invest approximately $1.8 billion in capital expenditures and approximately $277 million per year in operating expenditures to comply with this rule.